

Attorney's Docket No. K&A 23-0297  
Client's Docket No. 15097

**APPLICATION**

**FOR UNITED STATES LETTERS PATENT**

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**SPECIFICATION**

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **YAKOV AVIDON**, a citizen of  
UNITED STATES OF AMERICA, have invented a new and useful  
**BATHTUB ASSISTANCE APPARATUS** of which the following is a  
specification:

# BATHTUB ASSISTANCE APPARATUS

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## BACKGROUND OF THE INVENTION

### Field of the Invention

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The present invention relates to bathtub handrails and more particularly pertains to a new bathtub assistance apparatus for aiding a user entering and exiting a bathtub.

### 15 Description of the Prior Art

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The use of bathtub handrails is known in the prior art. U.S. Patent No. 3,55,576 describes a system for handgrip for a user in a bathtub to pull against to assist the user. Another type of bathtub handrail is U.S. Patent No. 2,511,756 having a handrail that is coupled to the bath tub to be gripped by the user to assist the user while in the bathtub. U.S. Patent No. 4,417,361 has a gripping means being coupled to side wall of the bathtub to provide hand support for a person stepping over the wall of the bathtub.

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While these devices fulfill their respective, particular objectives and requirements, the need remains for a device that has certain improved features ensures that the apparatus can not inadvertently move when being used by the user.

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## SUMMARY OF THE INVENTION

The present invention meets the needs presented above by providing extension members and a locking member used to inhibit  
5 horizontal movement of the apparatus and a spacer member to engage the ceiling to inhibit vertical movement of the apparatus.

Still yet another object of the present invention is to provide a new bathtub assistance apparatus that provides a user with  
10 multiple areas to grasp the apparatus to provide the best support for the user.

To this end, the present invention generally comprises a frame assembly being designed for being positioned on top of the bathtub  
15 whereby the frame assembly extends between opposing walls positioned at opposite ends of the bathtub. A support assembly is coupled to the frame assembly whereby the support assembly extends upwardly from the frame assembly. The support assembly is designed for being gripped by the user to provide support for the  
20 user when the user is entering and exiting a bathtub. At least one locking member is operationally coupled to the frame assembly. The locking member is designed for selectively engaging the bathtub whereby the locking member inhibits sliding of the frame assembly with respect to the bathtub when the user uses the support  
25 assembly.

The disabled community is estimated to be about eight percent of the U.S. population, a figure that includes people with physical impairments and mobility limitations and other issues. Elderly  
30 individuals, many of whom are disabled or suffer varying types of physical limitations, comprised 13 percent of the population in

2000. Individuals classified as elderly are all individuals who have attained the age of 65 or older. The elderly and physically impaired individuals are faced with many problems which cannot be envisioned by the majority of the populace who are fortunate

5 enough to have all their physical faculties and facilities. Many routine, everyday tasks cannot be accomplished without assistance of another individual. One such task is bathing, a basic task which is essential for maintaining good hygiene and health. Lowering and raising themselves in a bathtub, without assistance, can be  
10 extremely difficult for the elderly and physically impaired and many bathtub related injuries are incurred each year. Having recognized the applicant has seen a need for an bathtub assistance apparatus that would make it possible for the elderly and impaired to take a bath without assistance, and safely enter and exit a  
15 bathtub.

There has thus been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in  
20 order that the present contribution to the art may be better appreciated. There are additional features of the invention that will be described hereinafter and which will form the subject matter of the claims appended hereto.

25 The objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

## 30 **BRIEF DESCRIPTION OF THE DRAWINGS**

The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

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Figure 1 is a side view of a new bathtub assistance apparatus according to the present invention shown in use.

Figure 2 is a Perspective view of the present invention.

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Figure 3 is a cross-sectional view of the present invention taken along line 3-3 of Figure 2.

Figure 4 is a cross-sectional view of the present invention taken along line 4-4 of Figure 2.

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## **DESCRIPTION OF THE PREFERRED EMBODIMENT**

With reference now to the drawings, and in particular to Figures 1 through 4 thereof, a new bathtub assistance apparatus embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

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As best illustrated in Figures 1 through 4, the bathtub assistance apparatus 10 generally comprises a frame assembly 11 being designed for being positioned on top of the bathtub whereby the frame assembly 11 extends between opposing walls positioned at opposite ends of the bathtub.

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A support assembly 12 is coupled to the frame assembly 11 whereby the support assembly 12 extends upwardly from the frame assembly 11. The support assembly 12 is designed for being

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gripped by the user to provide support for the user when the user is entering and exiting a bathtub.

At least one locking member 13 is operationally coupled to  
5 the frame assembly 11. The locking member 13 is designed for selectively engaging the bathtub whereby the locking member 13 inhibits sliding of the frame assembly 11 with respect to the bathtub when the user uses the support assembly 12.

10 The frame assembly 11 comprises a pair of side members 14 and an end member 15. The end member 15 is coupled to the side members 14 whereby the end member 15 extends between the side members 14. The end member 15 is positioned at an end of each of the side members 14 whereby the end member 15 is designed for  
15 being positioned adjacent one of the opposing walls. The side members 14 is designed for extending along the length of the bathtub.

The frame assembly 11 comprises pair of extension members  
20 16. Each of the extension members 16 is operationally coupled to one of the side members 14 opposite the end member 15. Each of the extension members 16 is selectively extendable from the associated one of the side members 14 whereby the extension members 16 are designed for engaging one of the opposing walls to  
25 secure the frame assembly 11 between the opposing walls. Each of the extension members 16 is threadably coupled to the associated one of the side members 14 whereby the extension member are rotated to extend and retract the extension members 16 to fit the distance between the opposing walls.

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The support assembly 12 comprises a pair of stanchion members 17 and at least one support member 18. Each of the stanchion members 17 is coupled to one of the side members 14 of the frame assembly 11 whereby each of the stanchion members 17  
5 extends upwardly from the associated one of the side members 14 of the frame assembly 11 and the bathtub. The support member 18 is coupled to the stanchion members 17 whereby the support member 18 extends between the stanchion members 17. The support member 18 is designed for being grasped by the user to support the weight  
10 of the user when the user is entering and exiting a bath.

The support assembly 12 comprises a pair of bracing members 19. Each of the bracing members 19 is coupled to one of the stanchion members 17 and one of the side members 14 of the frame  
15 assembly 11 whereby each of the bracing members 19 extend between the associated one of the side members 14 of the frame assembly 11 and the associated one of the stanchion members 17. The bracing members 19 are for providing additional support for the stanchion members 17 when the user puts weight on the support  
20 member 18.

One of the stanchion members 17 has a length greater than a length of the other one of the stanchion members 17 whereby the one of the stanchion members 17 having the greater length is  
25 designed for extending between the frame assembly 11 and a ceiling above the bathtub. The one of the stanchion members 17 having the greater length is designed for abutting the ceiling to push the frame assembly 11 against the top of the bathtub.

The support assembly 12 comprises a spacer member 20. The spacer member 20 is operationally coupled to the one of the stanchion members 17 having the greater length opposite the frame assembly 11. The spacer member 20 is designed for abutting  
5 against the ceiling to compensate for a gap between the ceiling and the stanchion members 17 when the spacer member 20 is actuated with respect to the associated one of the stanchion members 17. The spacer member 20 is threadably coupled to the associated one of the stanchion members 17 whereby rotation of the spacer member  
10 20 retracts and extends the spacer member 20 from the associated one of the stanchion members 17 to match the distance between the bathtub and the ceiling.

The locking member 13 comprises a pivot portion 21 and an  
15 engaging member 22. The pivot portion 21 is pivotally coupled to one of the side members 14 of the frame assembly 11. The engaging member 22 is coupled to the pivot portion 21 whereby the engaging member 22 pivots around the associated one of the side members 14 of the frame assembly 11. The engaging member 22 is  
20 designed for engaging a side of the bathtub to inhibit sliding of the frame assembly 11 with respect to the bathtub when the locking member 13 is pivoted with respect to the frame assembly 11.

The pivot portion 21 of the locking member 13 comprises a  
25 slot 23. The slot 23 extends through the pivot portion 21. The slot 23 of the pivot portion 21 receives a limiting member 24. The limiting member 24 is operationally coupled to the associated one of the side members 14 of the frame assembly 11 whereby the limiting member 24 is for limiting the amount the locking member  
30 13 rotates with respect to the associated one of the side members 14



of the frame assembly 11. The limiting member 24 is selectively actuated to secure the sleeve portion against the associated one of the side members 14 of the frame assembly 11 to inhibit inadvertent rotation of the locking member 13 with respect to the frame assembly 11.

The frame assembly 11, the support assembly 12 and the locking member 13 are comprised of polyvinyl chloride pipes, elbows and tees to effect the structure. The polyvinyl chloride provides a high degree of strength while still being light and easy to manipulate by the user.

In use, the user places the frame assembly 11 on the top of the bathtub and rotates the extension members 16 to force the frame assembly 11 to engage both opposing walls. The spacer member 20 is then rotated with respect to the associated one of the stanchion members 17 to force the spacer member 20 against the ceiling and push the frame assembly 11 against the top of the bathtub. The user then rotates the locking member 13 down so that the engaging portion of the locking member 13 engages the inside side of the bathtub. The limiting member 24 is then tightened down to secure the pivot portion 21 to the associated one of the side members 14 to inhibit rotation of the locking member 13 with respect to the associated one of the side members 14. The engaging portion of the locking member 13 inhibits the frame assembly 11 from sliding along the top of the bathtub. The user then grasps at least one support member 18 to help with entering or exiting the bathtub to inhibit injury to the user.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the

invention, to include variations in size, materials, shape, form,  
function and manner of operation, assembly and use, are deemed  
readily apparent and obvious to one skilled in the art, and all  
equivalent relationships to those illustrated in the drawings and  
5 described in the specification are intended to be encompassed by  
the present invention.

Therefore, the foregoing is considered as illustrative only of  
the principles of the invention. Further, since numerous  
10 modifications and changes will readily occur to those skilled in the  
art, it is not desired to limit the invention to the exact construction  
and operation shown and described, and accordingly, all suitable  
modifications and equivalents may be resorted to, falling within the  
scope of the invention.